

- 1. <u>5,680,512</u>, Oct. 21, 1997, Personalized low bit rate audio encoder and decoder using special libraries; Irving Rabowsky, et al., **704/504**; <u>84/604</u>, 645; 704/220, 258, 501 [IMAGE AVAILABLE]
- 2. $\frac{5,677,994}{1}$, Oct. 14, 1997, High-efficiency encoding method and apparatus and high-efficiency decoding method and apparatus; Shinji Miyamori, et al., $\frac{704}{501}$; $\frac{375}{243}$; $\frac{704}{504}$ [IMAGE AVAILABLE]
- 3. <u>5,675,703</u>, Oct. 7, 1997, Apparatus for decoding compressed and coded sound signal; Hirofumi Sato, <u>704/230</u>; <u>370/477</u>; <u>375/240</u>; <u>704/258</u>, <u>501</u>, <u>504</u> [IMAGE AVAILABLE]
- 4. 5,640,489, Jun. 17, 1997, Audio synthesizer time-sharing its first memory unit between two processors; Makoto Furuhashi, 704/504; 84/604, 627; 704/258; 711/147 [IMAGE AVAILABLE]
- 5. <u>5,632,005</u>, May 20, 1997, Encoder/decoder for multidimensional sound fields; Mark F. Davis, et al., **704/504**; <u>381/22</u>, <u>23</u>; <u>704/205</u>, <u>220</u>, <u>229</u>, <u>230</u> [IMAGE AVAILABLE]
- 6. <u>5,612,869</u>, Mar. 18, 1997, Electronic health care compliance assistance; Alan M. Letzt, et al., <u>705/3</u>; <u>704/251</u>, <u>501</u>, <u>504</u> [IMAGE AVAILABLE]
- 7. <u>4,701,937</u>, Oct. 20, 1987, Signal storage and replay system; Shyue-Yun Wan, et al., <u>375/242</u>; <u>365/189.01</u>, <u>230.06</u>; <u>704/504</u> [IMAGE AVAILABLE]
- 8. <u>4,412,306</u>, Oct. 25, 1983, System for minimizing space requirements for storage and transmission of digital signals; Edward W. Moll, <u>364/715.02</u>, <u>926</u>, 933.3, <u>934</u>, <u>934.71</u>, <u>940.81</u>, <u>942.7</u>, <u>943.9</u>, <u>944.91</u>, <u>947.2</u>, <u>951.1</u>, <u>951.3</u>, <u>953, 953.7</u>, <u>DIG.2</u>; <u>434/157</u>; <u>704/504</u> [IMAGE AVAILABLE]
- 9. <u>4,280,192</u>, Jul. 21, 1981, Minimum space digital storage of analog information; Edward W. Moll, <u>341/155</u>; <u>364/919.2</u>, <u>919.4</u>, <u>926</u>, <u>926.1</u>, <u>926.4</u>, <u>933.3</u>, <u>942.7</u>, <u>942.8</u>, <u>947</u>, <u>947.2</u>, <u>947.6</u>, <u>951.1</u>, <u>951.3</u>, <u>951.5</u>, <u>DIG.2</u>; <u>704/504</u> [IMAGE AVAILABLE]
- 10. 3,598,921, Aug. 10, 1971, METHOD AND APPARATUS FOR DATA COMPRESSION BY A DECREASING SLOPE THRESHOLD TEST; T. O. Administrator of the National Aeronautics and Space Administration with respect to an invention of Paine, et al., 340/870.05; 704/504 [IMAGE AVAILABLE]
 TEXT DATA FOR PATENT 2,650,949 IS NOT AVAILABLE, SEE IMAGE DATA, THE MICROFILE OR PAPER INSTEAD

|=>

704/503



11 FEB 1998 09:16:12 U.S. Patent & Trademark Office P0006 664; **704/503**; 984/326, DIG.1 [IMAGE AVAILABLE]

- 15. <u>4,311,876</u>, Jan. 19, 1982, Route guidance system for roadway vehicles; Hiroshi Endo, et al., <u>455/456; 340/905; 370/521; 704/503 [IMAGE AVAILABLE]</u>
- 16. 3,949,175, Apr. 6, 1976, Audio signal time-duration converter; Toshio Tanizoe, et al., 704/503 [IMAGE AVAILABLE]
- 17. <u>3,936,611</u>, Feb. 3, 1976, Time compression scanner; Margaret A. Poole, **704/503**; <u>379/34</u>, <u>290</u>, <u>384</u> [IMAGE AVAILABLE]

TEXT DATA FOR PATENT 3,337,800 IS NOT AVAILABLE, SEE IMAGE DATA, THE MICROFILE OR PAPER INSTEAD

TEXT DATA FOR PATENT 3,017,456 IS NOT AVAILABLE, SEE IMAGE DATA, THE

MICROFILE OR PAPER INSTEAD TEXT DATA FOR PATENT 2,588,380 IS NOT AVAILABLE, SEE IMAGE DATA, THE MICROFILE OR PAPER INSTEAD

TEXT DATA FOR PATENT 2,534,060 IS NOT AVAILABLE, SEE IMAGE DATA, THE MICROFILE OR PAPER INSTEAD

=>

- 1. <u>5,668,923</u>, Sep. 16, 1997, Voice messaging system and method making efficient use of orthogonal modulation components; Kazimierz Siwiak, et al., 704/204; 381/15, 16; 704/500, 503 [IMAGE AVAILABLE]
- 2. <u>5,634,082</u>, May 27, 1997, High efficiency audio coding device and method therefore; Osamu Shimoyoshi, et al., <u>704/229</u>, <u>201</u>, <u>224</u>, <u>226</u>, <u>503</u> [IMAGE AVAILABLE]
- 3. <u>5,627,939</u>, May 6, 1997, Speech recognition system and method employing data compression; Xuedong Huang, et al., <u>704/256</u>, <u>222</u>, <u>500</u>, <u>503</u> [IMAGE AVAILABLE]
- 4. 5,617,507, Apr. 1, 1997, Speech segment coding and pitch control methods for speech synthesis systems; Chong R. Lee, et al., 704/200, 500, 503 [IMAGE AVAILABLE]
- 5. <u>5,490,167</u>, Feb. 6, 1996, Duplex voice communication radio transmitter-receiver; Fujio Sumi, et al., <u>375/219</u>; <u>370/276</u>, <u>521</u>; <u>375/240</u>, 364; 704/503 [IMAGE AVAILABLE]
- 6. <u>5,319,801</u>, Jun. 7, 1994, Seamless frequency hopping system; Manuel F. Richey, et al., 455/79; 375/202; 455/234.1; 704/503 [IMAGE AVAILABLE]
- 7. <u>5,131,042</u>, Jul. 14, 1992, Music tone pitch shift apparatus; Mikio Oda, **704/503**; <u>84/605</u> [IMAGE AVAILABLE]
- 8. <u>4,864,566</u>, Sep. 5, 1989, Precise multiplexed transmission and reception of analog and digital data through a narrow-band channel; Claude J. Chauveau, 370/521, 522, 535; 704/503 [IMAGE AVAILABLE]
- 9. $\frac{4,837,827}{1}$, Jun. 6, 1989, Method for transmitting two independent types of information and device for implementing the method; Artur Bardl, et al., 704/503 [IMAGE AVAILABLE]
- 10. 4,700,393, Oct. 13, 1987, Speech synthesizer with variable speed of speech; Sigeaki Masuzawa, et al., 704/503 [IMAGE AVAILABLE]
- 11. <u>4,672,641</u>, Jun. 9, 1987, Surface acoustic wave device for data rate reduction; Kuo-Hsiung Yen, et al., <u>375/240; 364/827; 704/503</u> [IMAGE AVAILABLE]
- 12. 4,518,994, May 21, 1985, Communication system compandor; Paul Schnitzler, 348/390; 704/503 [IMAGE AVAILABLE]
- 13. 4,426,711, Jan. 17, 1984, Process for the transmission of service signals for a digital radio beam, as well as transmitter and receiver for using such a process; Alain Huriau, 375/286, 240; 704/503 [IMAGE AVAILABLE]
- 14. <u>4,369,336</u>, Jan. 18, 1983, Method and apparatus for producing two complementary pitch signals without glitch; Anthony Agnello, 381/61; 84/631,

- 5,157,728, Oct. 20, 1992, Automatic length-reducing audio delay line;
 Eric R. Schorman, et al., 704/502 [IMAGE AVAILABLE]
- 2. $\frac{4,200,810}{1}$, Apr. 29, 1980, Method and apparatus for averaging and stretching periodic signals; Gerald D. Cain, et al., $\frac{327/174}{1}$, $\frac{172}{1}$, $\frac{263}{1}$, $\frac{552}{1}$; $\frac{552}{1}$
- 3. <u>4,173,003</u>, Oct. 30, 1979, Deltic (time compressor) with adjustable multiplication ratio; Fred W. Thies, <u>333/165</u>; <u>327/286</u>; <u>333/144</u>; <u>377/49</u>, <u>54</u>; 704/502 [IMAGE AVAILABLE]
- 4. 3,914,554, Oct. 21, 1975, COMMUNICATION SYSTEM EMPLOYING SPECTRUM FOLDING; Harold Seidel, 704/502; 370/477, 480 [IMAGE AVAILABLE]
- 5. 3,860,760, Jan. 14, 1975, ELECTRONIC TIME COMPRESSOR OR EXPANDER; Otto E. Rittenbach, 327/100, 113; 360/8; 704/502 [IMAGE AVAILABLE]
- 3,809,805, May 7, 1974, VIDEO BANDWIDTH REDUCTION; Vincent Kasprzak, 386/68; 348/388; 360/23; 704/502 [IMAGE AVAILABLE] TEXT DATA FOR PATENT 3,480,737 IS NOT AVAILABLE, SEE IMAGE DATA, THE MICROFILE OR PAPER INSTEAD TEXT DATA FOR PATENT 3,430,145 IS NOT AVAILABLE, SEE IMAGE DATA, THE MICROFILE OR PAPER INSTEAD TEXT DATA FOR PATENT 3,355,554 IS NOT AVAILABLE, SEE IMAGE DATA, THE MICROFILE OR PAPER INSTEAD TEXT DATA FOR PATENT 3,321,710 IS NOT AVAILABLE, SEE IMAGE DATA, THE MICROFILE OR PAPER INSTEAD TEXT DATA FOR PATENT 3,243,703 IS NOT AVAILABLE, SEE IMAGE DATA, THE MICROFILE OR PAPER INSTEAD TEXT DATA FOR PATENT 3,209,263 IS NOT AVAILABLE, SEE IMAGE DATA, THE MICROFILE OR PAPER INSTEAD TEXT DATA FOR PATENT 3,192,315 IS NOT AVAILABLE, SEE IMAGE DATA, THE MICROFILE OR PAPER INSTEAD TEXT DATA FOR PATENT 3,037,083 IS NOT AVAILABLE, SEE IMAGE DATA, THE MICROFILE OR PAPER INSTEAD TEXT DATA FOR PATENT 3,006,991 IS NOT AVAILABLE, SEE IMAGE DATA, THE MICROFILE OR PAPER INSTEAD TEXT DATA FOR PATENT 2,958,039 IS NOT AVAILABLE, SEE IMAGE DATA, THE MICROFILE OR PAPER INSTEAD TEXT DATA FOR PATENT 2,921,124 IS NOT AVAILABLE, SEE IMAGE DATA, THE MICROFILE OR PAPER INSTEAD TEXT DATA FOR PATENT 2,920,289 IS NOT AVAILABLE, SEE IMAGE DATA, THE MICROFILE OR PAPER INSTEAD TEXT DATA FOR PATENT 2,920,287 IS NOT AVAILABLE, SEE IMAGE DATA, THE MICROFILE OR PAPER INSTEAD TEXT DATA FOR PATENT 2,908,746 IS NOT AVAILABLE, SEE IMAGE DATA, THE MICROFILE OR PAPER INSTEAD TEXT DATA FOR PATENT 2,850,574 IS NOT AVAILABLE, SEE IMAGE DATA, THE MICROFILE OR PAPER INSTEAD TEXT DATA FOR PATENT 2,824,904 IS NOT AVAILABLE, SEE IMAGE DATA, THE MICROFILE OR PAPER INSTEAD TEXT DATA FOR PATENT 2,784,256 IS NOT AVAILABLE, SEE IMAGE DATA, THE MICROFILE OR PAPER INSTEAD TEXT DATA FOR PATENT 2,732,424 IS NOT AVAILABLE, SEE IMAGE DATA, THE MICROFILE OR PAPER INSTEAD TEXT DATA FOR PATENT 2,115,803 IS NOT AVAILABLE, SEE IMAGE DATA, THE MICROFILE OR PAPER INSTEAD TEXT DATA FOR PATENT 2,014,081 IS NOT AVAILABLE, SEE IMAGE DATA, THE MICROFILE OR PAPER INSTEAD

=>

signal band; Alban Graf, et al., 704/501; 370/477; 380/36, 38 [IMAGE AVAILABLE]

TEXT DATA FOR PATENT 3,541,264 IS AVAILABLE IN USOCR

TEXT DATA FOR PATENT 3,520,996 IS AVAILABLE IN USOCR

TEXT DATA FOR PATENT 3,467,783 IS NOT AVAILABLE, SEE IMAGE DATA, THE MICROFILE OR PAPER INSTEAD

TEXT DATA FOR PATENT 3,366,739 IS NOT AVAILABLE, SEE IMAGE DATA, THE MICROFILE OR PAPER INSTEAD

TEXT DATA FOR PATENT 3,325,601 IS NOT AVAILABLE, SEE IMAGE DATA, THE MICROFILE OR PAPER INSTEAD

TEXT DATA FOR PATENT 2,879,337 IS NOT AVAILABLE, SEE IMAGE DATA, THE MICROFILE OR PAPER INSTEAD

TEXT DATA FOR PATENT 2,219,021 IS NOT AVAILABLE, SEE IMAGE DATA, THE MICROFILE OR PAPER INSTEAD

TEXT DATA FOR PATENT 2,219,021 IS NOT AVAILABLE, SEE IMAGE DATA, THE MICROFILE OR PAPER INSTEAD

- 1. <u>5,680,512</u>, Oct. 21, 1997, Personalized low bit rate audio encoder and decoder using special libraries; Irving Rabowsky, et al., <u>704/504</u>; <u>84/604</u>, 645; 704/220, 258, 501 [IMAGE AVAILABLE]
- 2. <u>5,677,994</u>, Oct. 14, 1997, High-efficiency encoding method and apparatus and high-efficiency decoding method and apparatus; Shinji Miyamori, et al., 704/501; 375/243; 704/504 [IMAGE AVAILABLE]
- 3. <u>5,675,703</u>, Oct. 7, 1997, Apparatus for decoding compressed and coded sound signal; Hirofumi Sato, <u>704/230</u>; <u>370/477</u>; <u>375/240</u>; <u>704/258</u>, <u>501</u>, <u>504</u> [IMAGE AVAILABLE]
- 4. <u>5,673,364</u>, Sep. 30, 1997, System and method for compression and decompression of audio signals; Leon Bialik, **704/501**, 500 [IMAGE AVAILABLE]
- 5. 5,621,760, Apr. 15, 1997, Speech coding transmission system and coder and decoder therefor; Hiroki Gotoh, et al., 375/245; 341/76, 143; 375/249; 704/200, 230, 501 [IMAGE AVAILABLE]
- 6. <u>5,612,869</u>, Mar. 18, 1997, Electronic health care compliance assistance; Alan M. Letzt, et al., 705/3; 704/251, 501, 504 [IMAGE AVAILABLE]
- 7. <u>5,490,170</u>, Feb. 6, 1996, Coding apparatus for digital signal; Kenzo Akagiri, et al., 375/240; 704/501 [IMAGE AVAILABLE]
- 8. <u>5,463,424</u>, Oct. 31, 1995, Multi-channel transmitter/receiver system providing matrix-decoding compatible signals; Roger W. Dressler, <u>348/485</u>; 381/22; 704/501 [IMAGE AVAILABLE]
- 9. <u>5,159,611</u>, Oct. 27, 1992, Variable rate coder; Yoshihiro Tomita, et al., 375/<u>254; 380/41</u>; <u>704/501</u> [IMAGE AVAILABLE]
- 10. <u>5,105,463</u>, Apr. 14, 1992, System for subband coding of a digital audio signal and coder and decoder constituting the same; Raymond N. J. Veldhuis, et al., **704/501** [IMAGE AVAILABLE]
- 11. 5,020,104, May 28, 1991, Method of reducing the useful bandwidth of bandwidth-limited signals by coding and decoding the signals, and system to carry out the method; Dan Ciulin, 380/6; 375/238, 240; 380/38; 704/501 [IMAGE AVAILABLE]
- 12. 4,944,012, Jul. 24, 1990, Speech analyzing and synthesizing apparatus utilizing differential value-based variable code length coding and compression of soundless portions; Tomokazu Morio, et al., 704/501; 375/245, 246 [IMAGE AVAILABLE]
- 13. 4,903,301, Feb. 20, 1990, Method and system for transmitting variable rate speech signal; Kazuhiro Kondo, et al., 704/501; 375/240 [IMAGE AVAILABLE]
- 14. <u>4,771,345</u>, Sep. 13, 1988, Reproducing apparatus; Osamu Watanabe, <u>360/8</u>, 21, 31, 64, 73.07; 386/75; 704/501 [IMAGE AVAILABLE]
- 15. <u>4,267,407</u>, May 12, 1981, Method and apparatus for the transmission of speech signals; Hans R. Schindler, et al., **704/501**; <u>370/435</u> [IMAGE AVAILABLE]
- 16. <u>4,091,242</u>, May 23, 1978, High speed voice replay via digital delta modulation; Francis Paul Carrubba, et al., **704/501**; <u>375/247</u> [IMAGE AVAILABLE]
- 17. 4,071,707, Jan. 31, 1978, Process and apparatus for improving the utilization of transmisson channels through thinning out sections of the





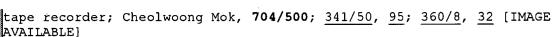
11 FEB 1998 09:21:05

U.S. Patent & Trademark Office

P0009

- 27. <u>4,307,380</u>, Dec. 22, 1981, Transmitting signals over alternating current power networks; Jean-Gabriel Gander, <u>340/310.03</u>; <u>178/66.1</u>; <u>340/310.02</u>; 375/200, <u>272</u>; 704/500 [IMAGE AVAILABLE]
- 28. 4,109,243, Aug. 22, 1978, Data sequence display system and time-compression system therefor; Christopher Cameron Day, et al., 340/870.05, 870.07, 870.19; 346/33ME; 704/500 [IMAGE AVAILABLE]
- 29. 4,092,603, May 30, 1978, System for obtaining pulse compression in the frequency domain; John B. Harrington, 375/349, 321; 455/303; 704/500 [IMAGE AVAILABLE]
- 30. 3,962,639, Jun. 8, 1976, System for reducing radio communication frequency bandwidth and increasing number of channels available; David W. Kermode, 455/42, 59, 266; 704/500 [IMAGE AVAILABLE]
- 31. 3,962,535, Jun. 8, 1976, Conditional replenishment video encoder with sample grouping and more efficient line synchronization; Barin Geoffry Haskell, 348/415; 375/366; 704/500 [IMAGE AVAILABLE] TEXT DATA FOR PATENT RE 28,426 IS AVAILABLE IN USOCR TEXT DATA FOR PATENT 3,181,074 IS NOT AVAILABLE, SEE IMAGE DATA, THE MICROFILE OR PAPER INSTEAD

l of l



- 18. <u>5,185,800</u>, Feb. 9, 1993, Bit allocation device for transformed digital audio broadcasting signals with adaptive quantization based on psychoauditive criterion; Yannick Mahieux, **704/500** [IMAGE AVAILABLE]
- 19. <u>5,159,636</u>, Oct. 27, 1992, Audio signal expander apparatus; Gary Rogalski, **704/500** [IMAGE AVAILABLE]
- 20. <u>5,155,771</u>, Oct. 13, 1992, Sparse superlattice signal processor; George Carayannis, et al., **704/500** [IMAGE AVAILABLE]
- 21. <u>5,136,618</u>, Aug. 4, 1992, Method and apparatus for bandwidth reduction of modulated signals; Laurence E. Wright, Jr., <u>375/240</u>; <u>358/426</u>; <u>704/500</u> [IMAGE AVAILABLE]
- 22. <u>5,136,586</u>, Aug. 4, 1992, Method and apparatus for telephone line multiplex channeling of toll-quality voice and digital information; Richard D. Greenblatt, <u>370/529</u>, <u>495</u>; <u>379/88</u>, <u>93.08</u>; <u>704/500</u> [IMAGE AVAILABLE]
- 23. <u>5,043,676</u>, Aug. 27, 1991, Automatic level control circuit; Takeshi Sato, et al., 330/284, 306; 333/17.1; 704/500 [IMAGE AVAILABLE]
- 24. <u>4,922,535</u>, May 1, 1990, Transient control aspects of circuit arrangements for altering the dynamic range of audio signals; Ray M. Dolby, **704/500**; 333/14; 381/106 [IMAGE AVAILABLE]
- 25. <u>4,700,390</u>, Oct. 13, 1987, Signal synthesizer; Kenji Machida, **704/500**; 84/660, 661, 663; 381/28, 61; 984/328, DIG.1 [IMAGE AVAILABLE]
- 26. 4,370,524, Jan. 25, 1983, Circuit for time compression and expansion of audio signals; Seisuke Hiraguri, 704/500 [IMAGE AVAILABLE]

- 1. <u>5,684,923</u>, Nov. 4, 1997, Methods and apparatus for compressing and quantizing signals; Hiroshi Suzuki, et al., <u>704/229</u>, <u>203</u>, <u>224</u>, <u>230</u>, <u>263</u>, 500 [IMAGE AVAILABLE]
- 2. <u>5,673,364</u>, Sep. 30, 1997, System and method for compression and decompression of audio signals; Leon Bialik, <u>704/501</u>, <u>500</u> [IMAGE AVAILABLE]
- 3. <u>5,668,923</u>, Sep. 16, 1997, Voice messaging system and method making efficient use of orthogonal modulation components; Kazimierz Siwiak, et al., 704/204; 381/15, 16; 704/500, 503 [IMAGE AVAILABLE]
- 4. <u>5,654,952</u>, Aug. 5, 1997, Digital signal encoding method and apparatus and recording medium; Hiroshi Suzuki, et al., <u>369/124</u>, <u>47</u>; <u>704/500</u> [IMAGE AVAILABLE]
- 5. <u>5,649,053</u>, Jul. 15, 1997, Method for encoding audio signals; Sang-Wook Kim, 704/229, 230, 500 [IMAGE AVAILABLE]
- 6. <u>5,627,939</u>, May 6, 1997, Speech recognition system and method employing data compression; Xuedong Huang, et al., <u>704/256</u>, <u>222</u>, <u>500</u>, <u>503</u> [IMAGE AVAILABLE]
- 7. $\frac{5,617,507}{5}$, Apr. 1, 1997, Speech segment coding and pitch control methods for speech synthesis systems; Chong R. Lee, et al., $\frac{704/200}{500}$, $\frac{500}{500}$
- 8. <u>5,602,837</u>, Feb. 11, 1997, Multiplex system for a personal handy phone system; Hideaki Takahashi, <u>370/280</u>, <u>385</u>, <u>435</u>, <u>524</u>; <u>375/240</u>; <u>455/466</u>; <u>704/500</u> [IMAGE AVAILABLE]
- 9. <u>5,533,012</u>, Jul. 2, 1996, Code-division multiple-access system with improved utilization of upstream and downstream channels; Atsushi Fukasawa, et al., <u>370/342</u>, <u>208</u>; <u>375/208</u>; <u>704/500</u> [IMAGE AVAILABLE]
- 10. 5,530,750, Jun. 25, 1996, Apparatus, method, and system for compressing a digital input signal in more than one compression mode; Kenzo Akagiri, 380/4, 3, 28, 46, 49; 704/500 [IMAGE AVAILABLE]
- 11. <u>5,481,182</u>, Jan. 2, 1996, Up/down spectrum scaling of signals; Gopalkrishna G. Nadkarni, et al., <u>324/76.24</u>, <u>76.38</u>; <u>364/179</u>; <u>704/500</u> [IMAGE AVAILABLE]
- 12. <u>5,479,445</u>, Dec. 26, 1995, Mode dependent serial transmission of digital audio information; Kevin L. Kloker, et al., <u>375/220</u>, <u>290</u>; <u>704/500</u> [IMAGE AVAILABLE]
- 13. <u>5,477,110</u>, Dec. 19, 1995, Method of controlling a field emission device; Robert T. Smith, et al., <u>315/169.3</u>, <u>169.4</u>; <u>348/398</u>; <u>704/500</u> [IMAGE AVAILABLE]
- 14. 5,457,685, Oct. 10, 1995, Multi-speaker conferencing over narrowband channels; Terrence G. Champion, 370/260, 468; 379/202; 704/500 [IMAGE AVAILABLE]
- 15. <u>5,454,011</u>, Sep. 26, 1995, Apparatus and method for orthogonally transforming a digital information signal with scale down to prevent processing overflow; Osamu Shimoyoshi, <u>375/240</u>, <u>242</u>; <u>704/500</u> [IMAGE AVAILABLE]
- 16. <u>5,299,240</u>, Mar. 29, 1994, Signal encoding and signal decoding apparatus; Naoto Iwahashi, et al., <u>375/240</u>; <u>358/433</u>; <u>704/500</u> [IMAGE AVAILABLE]
- 17. 5,197,101, Mar. 23, 1993, Data compression circuit of a digital audio

1 of 1

```
(FILE 'USPAT' ENTERED AT 08:53:09 ON 11 FEB 1998)

DEL HIS

107 S 704/500,501,502,503,504/CCLS

12 3168 S (UNIVERSAL OR GENERIC) (5A) (INTERFAC### OR ADAPT####)

L3 141 S (DATA(2W) FORMAT###) (5A) RECOGNI######

L4 1 S L2 (L) L3

L5 0 S L2 AND L1

L6 0 S L3 AND L1

=>
```

- 13. 5,524,061, Jugard, 1996, Dual mode transducer a portable receiver; Charles W. Mooney, et al., 381/151, 193, 200, 203 [IMAGE AVAILABLE]
- 14. 5,349,701, Sep. 20, 1994, Method and apparatus for broken link detect using audio energy level; Gary S. Lobel, 455/222; 375/351; 455/212, 226.2 [IMAGE AVAILABLE]
- 15. 5,268,846, Dec. 7, 1993, Method and apparatus for nonsequential multimedia data interchange in a data processing system; Gordon W. Bonsall, et al., 395/200.61; 370/472; 395/200.66 [IMAGE AVAILABLE]
- 16. 5,262,964, Nov. 16, 1993, Method and apparatus for variable playback speed of multimedia data interchange within a data processing system; Gordon W. Bonsall, et al., 395/200.76; 348/705; 370/472; 375/242 [IMAGE AVAILABLE]
 - 17. 4,607,364, Aug. 19, 1986, Multimode data communication system; Jeffrey Neumann, et al., 370/470, 476, 506, 524, 528 [IMAGE AVAILABLE]
 - 18. 4,053,715, Oct. 11, 1977, Stuffing channel unit for telephone PCM system; Paul E. Drapkin, 370/506, 509 [IMAGE AVAILABLE]
 - 19. 4,009,389, Feb. 22, 1977, Apparatus for the automatic counting of passengers; Ulf Lindholm, 250/221; 340/555; 377/6, 53 [IMAGE AVAILABLE]
 - 20. 4,009,347, Feb. 22, 1977, Modular branch exchange and nodal access units for multiple access systems; Donald C. Flemming, et al., 370/321; 455/509 [IMAGE AVAILABLE]
 - 21. 4,009,346, Feb. 22, 1977, Distributional activity compression; Brian E. Parker, et al., 370/345, 341, 359, 369; 375/222; 455/12.1, 72 [IMAGE AVAILABLE]
 - 22. 4,009,345, Feb. 22, 1977, External management of satellite linked exchange network; Donald C. Flemming, et al., 370/321, 327, 336, 442; 455/8 [IMAGE AVAILABLE]
 - 23. 4,009,344, Feb. 22, 1977, Inter-related switching, activity compression and demand assignment; Donald C. Flemming, 370/321; 455/12.1 [IMAGE AVAILABLE]
 - 24. 4,009,343, Feb. 22, 1977, Switching and activity compression between telephone lines and digital communication channels; Harold G. Markey, et al., 370/321; 455/17 [IMAGE AVAILABLE]